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ABSTRACT

In the study reported here, it is argued that recent policies implemented to improve the quality of the teaching profession by altering career structures are not likely to affect positively teachers' practices, teachers' work conditions, students' learning, or traditional school organizational patterns. Analyses of four teacher career structures indicate that current occupational structures do little to address such issues as how teachers teach; what teachers know; and the diversity in terms of knowledge, skill, ambitions, and interests among individuals in the profession. Three alternatives for career structures are proposed--teachers as participants in a school community, teachers as participants in the local community, and teachers as individuals. The three alternative structures are discussed and evaluated in terms of how they account for individual differences among teachers while maintaining high standards for meaningful teaching and learning, and how they take into account existing organizational characteristics, norms, and expectations of teaching life. (Author/JD)

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Issue Paper 89-11

The Architecture of Teaching:

Michelle B. Parker, Janet Johnson, and Richard F. Elmore

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Abstract

This paper explores the relationship among teaching, learning, and the occupational structures in which teachers do their work. The authors argue that recent policies implemented to improve the quality of the teaching profession by altering career structures are not likely to affect positively teachers' practices, teachers' work conditions, students' learning, and traditional school organizational patterns. Through analyses of four teacher career structures, the authors show that current occupational structures do little to address how teachers teach, what teachers know, and the diversity in terms of knowledge, skill, ambitions, and interests among individuals in the profession. Three alternatives for career structures are proposed: teachers as participants in a school community, teachers as participants in the local community, and teachers as individuals. The alternatives proposed are based on the assumption that the teaching occupational structure can support teachers as individuals who have knowledge, expertise, and interest in their work, worthwhile contributions to make in shaping their practices, and ambitions for professional growth. Supporting teachers in their efforts to change their work during the career cycle can facilitate teachers' abilities to enhance students' learning. The three alternative structures are discussed and evaluated in terms of how they account for individual differences among teachers while maintaining high standards for meaningful teaching and learning, and how they take into account existing organizational characteristics, norms, and expectations of teaching life.

THE ARCHITECTURE OF TEACHING

Michelle B. Parker, Janet Johnson, and Richard F. Elmore[1]

The Problems of Design

This paper explores the relationship between learning, teaching, and the occupational structures in which teachers do their work. We examine recent proposals for altering teachers' career structures and we suggest some alternatives. We base our alternatives on a belief that altering teachers' career structures can facilitate and enhance student learning. By taking into account the diversity of teachers' knowledge, competence, interests, and needs, occupational structures can support teacher change, growth, and general enthusiasm for their work. A profession which advocates change and development can better adapt itself to changing views of learning and knowledge currently being advanced than one stagnant within its traditional views and practices.

Historically, in the 1800s and early 1900s, occupational structures in teaching were informal and not well specified. Teachers gained status and pay increases by moving from the country into the city, transferring from a multigrade classroom into a single-grade classroom school, moving from elementary schools to high schools, or moving from teaching into administration (Labaree, 1989). Structures arose from informal practice rather than from policy. Over time, though, the career structures of teaching became more complex and more heavily influenced by policy, with the growth of entry requirements, certification systems, and collective bargaining (Darling-Hammond and Berry, 1988).

Recent policies addressed to the career structures of teaching are fundamentally different from those of the past. They have grown from a concern by policymakers about student performance, and about the ability of public schools to attract and retain quality teachers. As the purposes of policies affecting the career structure of teaching have broadened, so too has policymaking activity in states and localities (Darling-Hammond and Berry, 1988; Malen and Hart, 1987; Malen, Murphy, and Hart, 1987). The 1980s saw a dramatic increase in legislation addressed to the reform of teaching and teacher education, including attention to licensing and testing of teachers and teacher compensation. States have begun to specify minimum grade point averages, program contents, subject matter knowledge necessary for teachers, and competency testing requirements. Certification and recertification requirements have been tightened.

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Many states have attempted to change certification and licensing procedures as well as compensation systems through the introduction of career ladders. At least 18 states had implemented or were designing career ladder plans as of 1986 (Cornett, 1986). Pipho (1986) reported more than half the states had incorporated financial incentives through ladders or other incentive plans. Career ladders, coupled with other state reforms, such as more rigorous student standards and greater specification of curriculum content, have been combined in reform packages which are designed to increase attention to quality teaching and academic content.

Current reform proposals seem to be leading in two different directions. One direction is the improvement of schools as they are presently structured. Reforms of these kinds are based on the assumption that the current structure of schools is adequate, yet may need attention in certain areas (e.g., student attendance, curriculum, teacher practices). Suggested changes rely upon increased specification of curriculum, tighter monitoring and control, and tighter relations between teacher performance and rewards. Another direction in changing the way schools are structured is to improve conditions of teaching and learning. These reforms are based on the assumption that improved conditions can come about when schools exercise more autonomy and control in such matters as curriculum, budget, and personnel decisions. Advocates of this view urge new school alliances (e.g., forming school/university partnerships to provide exchanges of ideas and practices) and new ways to satisfy school clients (e.g., creation of voucher systems allowing for high degrees of choice among clients).

These competing views of school reform embody very different conceptions of teaching and the role of teachers. They require designing and assessing change in terms of its effect on three overlapping arenas: students' learning, teachers' working conditions, and the organizational structures within which teachers and students work (Elmore, 1988). From the intersections among these spheres several questions and issues arise. For instance, what kinds of teacher competence will promote what kinds of student learning? What kinds of student learning do we wish to promote? What kinds of teaching practices will foster worthwhile student learning and thinking? Under what conditions will teachers experiment with and develop practices which promote different kinds of student learning? Questions emerge also about the kinds of teaching and learning which result from prescribed practices and centralized curriculum alignment.

We argue that current policies addressed to teachers' career structures are not likely to affect student learning, teachers' practices and work conditions, and traditional organizational patterns. These occupational structures have been designed with scant consideration of what motivates teachers and students to do productive work. They do little to address how teachers teach, teachers' engagement with student learning, what teachers know, or their access to opportunities for learning and professional growth. Current structures recognize differences only through content specialization or by providing stopping

points on a career ladder. Different ladder rungs represent different pay scales and different uses of time. Yet there is substantial evidence that recognizing differences through merit pay, increased responsibility, and/or an extended year contract lack significance to teachers and thus do little to motivate better performance (Johnson, 1984; Murnane and Cohen, 1986; Rosenholtz, 1985).

The task of designing new career structures for teachers is analogous to the work of good architects. A good architect talks extensively to the people who are going to use the space before designing it to discover how they will use the space, how much space is required, what their habits are and so on. Similarly, designers of a responsive occupational structure need to understand the people for whom the structure is being created. Like a good architect who tries to understand how people think and feel about the spaces in which they live and work, the designers of an occupational structure could take into consideration how teachers think and feel about the nature of their work and what they would like to accomplish. Like good designers of space who think about the kind of work or play that will go on and then create structures that facilitate the accomplishment of their goals, good designers of occupational structures would try to create systems that actively support quality teaching and the ongoing professional development of teachers.

The creative task for the architect is to consider all the variables and come up with a design that fits the desires of the people who will use the space, fits tastefully within a larger set of structures, and withstands the rigor of building codes and regulations. The architect's plan represents a compromise between the ideal world and the real world. It combines the elements that are negotiable and those elements which must conform to the constraints of resources and physics.

Many assumptions about the clients' needs and desires in order to do their work effectively and efficiently guide the work of the good architect. So, too, can those assumptions guide the work of designers of teacher career structures. Our proposed alternative designs take into account the work of teaching and learning, which by definition means that teachers are fostering worthwhile learning and critical thinking for students. In helping teachers bring about student learning, career structures may include provisions for access to the knowledge teachers need in order to teach, opportunities for teachers to focus on different aspects of teaching at different points in their career, allowance for choice of focus and responsibilities in the workplace, and awarding of meaningful incentives which interest and motivate teachers.

Attempts to Solve the Design Problem

Differentiated staffing programs initiated in the early 1970s called for assigning teachers different tasks, including additional responsibilities outside the classroom, teaching with colleagues in teams, and assuming newly created positions such as "master teacher." Assumptions that good, hard work should be rewarded and that work could be differentiated

hierarchically drove the differentiated staffing arrangements. For the most part, the differentiated staffing structures of the 1970s died out. Their demise was related to economic and social trends of the era rather than the actual arrangements.

Many new positions were funded through "soft" money from federal grants, often with little local matching money, and were subject to change when funding changed. Since jobs were scarce, teachers were protecting their positions. They were not as easily convinced to take on a new position which could be cut. Furthermore, school boards and governments were busy coping with the demands of racial and ethnic integration and declining test scores. The time did not seem right to try something very new and different (Edelfelt, 1985).

Current career structures focus on competency and salary differentials and depend a great deal on teacher evaluation and staff development (Elmore and McLaughlin, 1988; Hawley, 1985; Schlechty, 1985; Wise and Darling-Hammond, 1984-1985; Wise, Darling-Hammond, and Berry, 1988; Wise, Darling-Hammond, McLaughlin, and Bernstein, 1984). By and large they are hierarchical in nature, taking the shape of a ladder in most places. The first rung usually includes new teachers. Subsequent rungs include veteran teachers and provide increasing degrees of responsibility with accompanying salary changes. We have chosen to examine four such programs: Charlotte/Mecklenburg in North Carolina and Temple City, California--two examples of programs initiated at the district level--and Tennessee and Utah, two state-level programs. Three of the programs still operate and continue to evolve. Though Temple City dropped its program, remnants of it exist in the Tennessee career ladder structure (English, 1984-1985a).

Tables 1 and 2 provide succinct formulations of four attempts to differentiate teaching staffs. They provide an overview of the programs, featuring elements most integral to the work of teaching. Data come from published articles and reviews; personal correspondence and conversations with persons who created, implemented, and/or did research about the programs; and studies currently underway or recently completed (e.g., a study of the Tennessee career ladder program undertaken by the Vanderbilt Institute of Public Studies, a study of the Utah program done by Far West Laboratory). Elements on both tables are the same, but are separated by district or state level for easier comparison. In addition, we include a short statement about the underlying philosophies and assumptions or purposes for each program.

The Cases

Local District Programs

Charlotte-Mecklenburg, North Carolina. At the heart of the Career Development Program in Charlotte-Mecklenburg is the perceived connection between good preparation and experience, supported when necessary by additional training, and effective practice. That basic principle drives the system, which includes lots of attention to teacher evaluation procedures as indicators of a teacher's ability to move up the career ladder. The creators

Table 1

Design Elements in Previous Attempts at Differentiating Teachers' Work

Elements in the Design	What Elements Look Like in Charlotte/Mechlenburg	What Elements Look Like in Temple City
Structural Characteristics		
Length of ladder	6 stages: provisional teacher; career nominee; career candidate; career I, II, III	4 stages: associate; staff; senior; master teacher
Time at each stage (distance between rungs)	New teachers: 4-6 years. Tenured teachers: 1-2 years "fast-track": progress to "Career I" status	Lowest rung: 4 years to move to "Staff Teacher"
Credentials	B.A., B.S., and M.A. degrees; "Staff Development Center" offers specially tailored "advanced certification" programs, and "advance degree" programs with certain universities	I: BA; II: BA + state credential; III: Master's or equivalent; IV: Doctorate or equivalent
Range of work at each stage	Range from a "low" stage of classroom instruction and participating in training programs to assuming greater leadership, mentoring colleagues, participating in program and individual evaluation, writing curriculum	Range from lowest stage personnel working on learning and demonstrating mastery of "skills and abilities" to assuming leadership, spending greater time outside the classroom and/or using the classroom as a laboratory, mentoring colleagues, writing curriculum
Evaluation		
Who was evaluated	Classroom teachers	Classroom teachers, non-teaching personnel
What was evaluated	Teacher competencies assumed necessary to meet system expectations for experienced teachers: classroom performance, faculty performance, professional performance	External reviewers looked at program elements, e.g., decision making, staff involvement, inservices, leadership load, effects on pupil learning

Elements in the Design	What Elements Look Like in Charlotte/Mechlenburg	What Elements Look Like in Temple City
How the evaluation was done	Team of teachers and administrators identified system expectations and probable knowledge and skills needed; each teacher compiled a portfolio of progress and an "action growth plan," assisted and supported by "advisory/ assessment teams"; teams include "observer-evaluators" who do classroom observations and provide feedback	Academic Senate, composed mostly of senior teachers, coordinated building activities; district-level "instructional council" composed of master teachers from each curricular discipline, support administrators and the superintendent
Frequency of evaluation	Teaching Year I: first semester an observation and/or conference weekly; semester 2 weekly conferencing and observer/evaluator observations; Year 2: 6 observations; Year 3-6: 3 observations yearly; other stages: 4 unannounced observations during a 3-year span (these are "quality checks"); yearly review of portfolio/ action growth plan	No data available
Latitude of choice		
Entry to the structure	Mandatory for entering teachers; optional for tenured teachers (viewed as an alternative structure)	No data available
Choice of responsibilities at each stage	Limited; set by position	Limited; set by position
Incentives and Rewards	Higher pay; critical assessment of classroom practice and a chance to enhance it	High salary hikes at the top; more and different responsibilities
Conditions of Support		
Provision of more time	Some release time for specific positions (e.g., mentor teachers working with novice teachers)	On levels 3 and 4, teachers had some time (exact amount unspecified) to work on curriculum development, mentoring, and staff development

Elements in the Design	What Elements Look Like in Charlotte/Mechlenburg	What Elements Look Like in Temple City
Duration of time to implement differentiated staffing	Program passed and funded in 1980 and started in 1984	Program started in the late 1960s and ended in the early 1970s
Personnel available for support	Formation of "advisory/ assessment teams" who work with teachers as they create their action growth plans; System-wide advisory steering committee including local union officials, administrators, teachers, and university representatives	Academic Senate: individual teachers who meet at the site level; intra-district council with representatives from schools and district

Table 2

Design Elements for Utah and Tennessee

Elements in the Design	Utah	Tennessee
Structural Characteristics		
Length of ladder	District and/or site discretion to set the structure	5 stages: Provisional; apprentice; career I, II, III
Time at each stage	District and/or site determined--some sites made a provision for rotating promotions because everyone deserved a chance	Provisional: 1 year; Apprentice: 3 years; Career I: 5 years, Career II: 5 years; Career III: 5 years
Credentials	No data available	Provisional: BA/BS, minimal competency on the NTE, one-year nonrenewable certificate; Apprentice: year nonrenewable certificate; Career I, II, III: renewable 5-year certificates. Additional academic or staff development credits are required to advance
Range of work at each stage	Local and site-level determined; some districts added job responsibilities to existing work; 3 districts altered job descriptions, expectations, and authority relationships	No data available
Evaluation		
Who was evaluated	Who and what is determined at the district or site-level. Some opted for the creation of "ladder specific evaluations." Some continued to use pre-existing evaluation structures. Some districts (about 50%) made use of student achievement tests as part of the evaluation of teachers	Classroom teachers and administrators (administrators operated under another differentiated structure)
What was evaluated	Teacher performance, teacher rewards and incentives, teacher responsibilities; student progress played a significant role in teacher evaluation	Minimum competencies of teachers based on effective schools research

Elements in the Design	Utah	Tennessee
How the evaluation was done	Each district provided the state a procedure for placement and advancement in particular job descriptions; by 1986-87 an evaluation system mandated by the state was used for all teachers in Utah	Local districts recommend probationary teachers for Apprentice certificate; Apprentice: interview with individual teacher, local district evaluation with state level review; Career I: local district evaluation 2 times during a 5-year period with state level review and interview; Career II: Local district evaluation 2 times during 5-year period; Career III: local district evaluation 2 times during 5-year period and "comprehensive" state level evaluation
Frequency of evaluation	Periodic; at least once annually	Classroom observations; individual teachers have portfolios (e.g., lesson plans, unit plan), interview, colleague and student questionnaires, written test of communication and professional skills; time lines not indicated
Latitude of choice		
Entry to the structure	All teachers may choose to participate or withdraw	Mandatory
Choice of responsibilities at each stage	District and/or site determined	Individuals may choose longer contracts with more responsibilities
Incentives and Rewards	District and/or site determined. Some site data show that all eligible teachers who applied divided the available money. Money was also given to those who took on special assignments	At Career II: contract length of 10 or 11 months; Career III: 10, 11, 12 month contract. With these contracts come "incentive pay" which range from $2000-$7000 or more

Elements in the Design	Utah	Tennessee
Conditions of Support		
Provision of more time	No data available	No data available
Duration of time to implement a differentiated structure	Implemented in small parts since 1983	No data available
Personnel available for support	One State Department of Education staff member per district to assist in creating and implementing plans; annual Career Ladder Conference to allow districts to share plans	No data available

of the plan, as well as district officials now helping implement and revise it, emphasize that the program incorporates state requirements within its own policies. The Career Development Office works along side other areas and departments in the district.

The plan grew out of a need to replace a large number of teachers who were retiring. Begun in 1980, it sought to involve teachers *and* administrators, as they were the persons most directly affected (Schlechty, Joslin, Leak, and Hanes, 1984-85). During the developmental stages in the early 1980s, the administrative position of assistant principal was created. The cream of the teacher crop were selected to serve in the position, that is, those persons with a lot of experience and who were "successful" teachers. Assistant principal responsibilities consisted totally of strengthening and supporting the instructional program.

Some basic assumptions guided policies and are still operative today. First, teachers were viewed as managers or executives, not members of an assembly line pushing out "educated" people. Second, tenure grew out of *demonstrated* classroom performance that was consistent with effective practice. And finally, while multiple evaluation instruments exist and were in fact used to make decisions, some subjective values still became part of the evaluation procedure (Schlechty et al., 1984-85).

The underlying philosophy of the program holds that growth comes from teacher evaluation, and that evaluation doesn't just happen for the sake of evaluation. The district maintains responsibility for training teachers they hire, and so a great deal of attention is paid to staff development. The use of a team of people working with multiple sources of data from each teacher in order to evaluate their performance continues to be a part of the program through all revisions.

The spirit of cooperation between higher education and public education which developed seems mirrored in the cooperative interactions among different constituencies on school "teams." The program was originally created with the help of some local university people and continues to be part of academic research. That interaction and mutual respect for work between university and district people continues in the interactions of team members, which include administrators and teachers who take responsibility for evaluating and suggesting remediation for teachers. The teacher being evaluated and assessed is always included in any discussions. The process seems to continue as originally perceived in the 1980s, changing only in terms of implementation procedures, not basic tenets, said a district official. To what extent new knowledge about effective practice becomes part of the evaluation system for teachers remains vague.

Temple City, California. We could find little information about the Temple City differentiated staffing program. What we found was a lot of debate about the amount and kind of evaluation carried out (both of a formative and summative nature) [English, 1984-85 a,b; Freiberg, 1984-85]. Debate about evaluation and the distribution of authority and status were issues in studies of Temple City as well as Mesa, Arizona, differentiated staffing

arrangements (Charters, 1973; Garms and Guttenberg, 1970). They seem to be the issues which people debated about in the early differentiated teaching experiments of the 1960s and 1970s.

The Temple City differentiated career ladder model began in the late 1960s, and continued into the early 1970s. It served a small, middle-class community of 4000 students in southern California. The main pieces of the plan gave attention to differential salaries for teachers and assignment of different instructional tasks and decision-making authority. Vertical differentiation led to teachers taking on different responsibilities, such as curriculum development, giving inservices to other staff, and research and evaluation. Instead of simply adding on tasks, they were instead weighted so that personnel could attend to different job requirements. Some new positions, such as department chairperson, remain visible in current career ladder plans.

Temple City officials saw the change in structure as a way to attract and retain quality teachers. A 1973 study conducted by the American Institute for Research pointed to some successes in the program which we can speculate did help keep teachers teaching (English, 1984-1985a). The report cited shared decision making, inservice training, staff participation in planning and designing differentiated arrangements, and the inclusion of different roles (e.g., paraprofessionals and senior teachers) as activities contributing to teachers' sense of efficacy, growth and commitment. Yet changes in teachers' work which involved them in more than just traditional classroom activities were also cited as program weaknesses. Teachers were being asked to take on, at times, extra work in new areas when they rather would have remained in traditional positions (English, 1984-1985a, b).

State Programs

Tennessee. Growing out of the Better Schools Program initiated in 1983 and a more direct result of the Governor's Comprehensive Educational Reform Act of 1984, The Tennessee Career Ladder Teacher Evaluation Program came into being during the Summer of 1984. It was designed to "attract the best teachers into the profession, to retain them once they are there, and to reward them for outstanding performance" (Furtwengler, 1985, p. 51). The Career Ladder Teacher Evaluation Program rests on a philosophical base stating that the primary goal of the program is to "identify and reward outstanding teaching performance" (Tennessee Department of Education, 1987, p. 1). Inherent in this stance are some of the other fundamental philosophical assumptions stated in the Tennessee Teacher Orientation Manual: the ideas that teacher performance can be assessed and that the teaching skills required for excellent teaching remain constant. This means that teachers who perform well, execute those skills better than teachers who perform poorly.

In keeping with the philosophy of the program, the statement of "Fundamental Beliefs and Principles" is organized into five headings: (a) The Program; (b) The Teacher; (c) The Evaluator; (d) The (evaluation) Process; and (e) The Evaluation Instruments. The principles

contained in these sections as well as the overall program description found in the Orientation Manual, lean heavily on teacher evaluation. While there is a statement regarding the connection between teacher evaluation and professional development, little to nothing in the manual describes what that professional development would look like. The program, rather, is set up on a strong belief that good evaluation means good teaching. It remains to be seen how the career ladder structure in Tennessee is linked to ongoing professional growth that goes beyond the acquisition of the specific teacher behaviors necessary to do well on evaluations.

In the Tennessee Career Ladder Evaluation Program, there are three licensing levels and five career levels. The first level is a probationary rung, the second is apprentice and the third, which consists of Career Levels, I, II, and III, is professional. A probationary teacher receives a one-year nonrenewable contract; she has completed her B.A. or B.S. and achieved minimum competency on the National Teacher Exams. The next step is a move to the apprentice level. The license required at the apprentice level is good for three years and is also nonrenewable. If the teacher maintains her minimum competency and passes the classroom evaluations, she may then move to Career Level I.

Licensing and evaluation procedures are the same at Career levels I, II, and III. Each level provides a 10-year renewable contract. Teachers may choose to remain at any of the career levels or to move up. Regardless of their choice they must be evaluated. The basic evaluation package that determines a teacher's quality involves three classroom observations and three conferences with evaluators, student questionnaires, a written test covering basic competencies in both written and verbal use of the English language, and a supervisor interview. This process occurs twice during the 10-year contract.

The main differences between Career Levels I, II, and III are in the domains of length of contract and state-funded salary supplement. At Career Level I, teachers work for 10 months and receive a $1,000 supplement (figures as of 1987). Responsibilities at this level differ from the probationary period in that a Career Level I teacher may be assigned to supervise student interns and probationary teachers. Career Level II teachers may choose between a 10- and 11-month contract and receive a $2,000 to $4,000 supplement respectively. Responsibilities may include a teaching assignment of gifted, remedial or other special needs students. Career Level II teachers may also supervise apprentice teachers. Career Level III is predictable. The contract options are 10, 11, or 12 months with salary supplements ranging from $3,000 to $7,000. Responsibilities are the same as for Career Level II teachers except that Career III teachers may also work with Career Level I teachers.

The Orientation Manual indicates that "almost four years of intensive effort have gone into the development of the evaluation process. . . . It is hoped that your experience in the Career Ladder evaluation process will be encouraging and satisfying and will enhance your professional growth" (Tennessee Department of Education, 1987, p. 2). Yet we find that Career Ladder Evaluation Program does little to promote teacher development or

incentives for remaining in the profession (at least in Tennessee). After 14 years of teaching in Tennessee and the accumulation of extra credentials necessary to remain in the Career Levels, the teacher has the option of choosing to work 10 or 11 months; she may be assigned special needs students and may work with first-year teachers and interns.

The only real difference between this career ladder and the traditional organizational structure of teaching is a highly structured evaluation system. Nothing else regarding teachers' autonomy, responsibility, choice, or authority is different. Underlying assumptions in this model suggest a reliance on teachers' performance of skills rather than on increasing teachers' knowledge. In this model teachers are not consulted regarding their own practice; they are supervised, evaluated, and talked to.

Utah. In 1983, the Utah state government established a committee to study the state of education in Utah. They produced a report in which they recommended changes in public education, higher education, and "growth and productivity." Recommendations about teachers included (a) creation of a four-level career ladder in which teachers took on more responsibility and pay as they moved up the ladder--movement was to be based on performance; (b) contract extension of, on the average, 12 extra days per year to provide opportunity for activities outside class time (e.g., parent conferences, inservice meetings); and (c) teacher education reform involving greater cooperation between public and higher education (Amsler, Mitchell, Nelson, and Timar, 1988).

Under compromise legislation, state-level mandatory guidelines were changed to advisory guidelines, and now the state operates as a technical consultant and "checker" for the district-derived career ladder plans. A five-component system of compensation for teachers resulted from the legislation and included paying teachers for activities beyond the classroom and for extra responsibilities as well as "performance" bonuses for "qualitatively better teaching" and teaching in subject areas where teacher supply was minimal. Though participation is voluntary, to date all 40 districts in Utah use a career ladder for their teachers. Teachers seem a bit reluctant to step onto the ladder, remaining concerned about taking on responsibilities outside their classroom obligations.[2]

Different change agents and incentives seemed to guide the legislature. Some people attributed the legislature's actions in large part to the vision and persistence of a small number of people working in the state department of education. They thought about teaching and educational reform in broader and nontraditional ways. They pushed bills through the legislature, whose members probably saw the plan as a typical merit pay option. Local districts, as well as personnel in the districts, lobbied for the bill. They saw it as a way to get extra money, something difficult to do in Utah, which is the next to the last in state funding for education. In many instances, superintendents saw the plan as a way to get

[2]This information comes through personal communication with a former teacher in Salt Lake City who was instrumental in crafting the Salt Lake Career Ladder Plan and "selling" it to teachers.

money to change teaching and education in their district. Here was a vehicle to pay teachers more and to have them engage in work other than the traditional responsibilities involved in being a teacher.

The Career Ladder System (CLS) provided a way to interconnect teacher evaluation, a topic under a lot of discussion and reform, and the work of teaching. The entangling of teacher evaluation and bonuses based on "effective" performance created some tension among principals and teachers. As Amsler et al. (1988) reported from their surveys and interviews with principals and teachers in 12 Utah districts, "When bonuses are used to encourage standards of good teaching they buy quality. When used to select out a few they buy dissension, creating a system of competition and resentment" (p. 52).

An underlying assumption the CLS implies is that additional responsibilities for extracurricular activities will not be forced upon the teacher. Rather, there will be changes in the *nature* of teachers' responsibilities and in the *nature* of their work (Malen and Hart, 1987). The combination of attention to individual needs and organizational change, brought about by performance bonuses and "extended contract year" amendments for individuals and lengthening of the career ladder and job enlargement plans relating to the effectiveness of the organization, are unique among the programs we examined.

The plan authors saw the CLS initially as a teacher salary plan, but according to Michael Garbett, a state education department official, the CLS has become a "plan to increase student performance by enhancing the teaching profession" (Cornett, 1986, p. 4). Certainly the plan does provide a way for teachers to get more money through working more days and advancing in level. The inclusion of teacher performance evaluation may ensure that teachers in classrooms engage in effective practice. The inclusion of multiple lines of evidence to evaluate a teacher (e.g., principal evaluation, peer evaluation, student progress, student surveys, and parental input) most likely helps evaluators get perhaps as clear a picture as possible so that evaluation is fair. But what criteria and standards *do* indicate effective practice? Is what is included on the career ladder what teachers want? Can the CLS thus serve the teaching profession by "enhancing" it, and will making better teachers make education better? Integral questions like these seem to be left unanswered.

Elements of the Four Programs

The four cases we examined differed from each other only minimally in terms of structure. The length of the ladder, number of years spent at each step, and credentials required to advance appeared quite similar. The similarities among the plans was especially striking when we looked at Utah, where local districts write their own plans, based on guidance offered at the state level. Even under these conditions, where we might expect to see different kinds of plans, we found few alternative ways to conceptualize and build career structures. After finding so many structural similarities, we changed our focus to the substance of career ladders; that is, what are teachers doing at each step. We asked, How

do teachers advance? What is the nature of their working responsibilities? Do districts simply *add on* responsibilities as teachers move up the ladder?

An accumulation model emerged. Teachers accumulated more time on the job, more tasks, more responsibilities, more authority, and more money. The essential factor in all programs is seniority. Years of teaching experience is assumed to equip one to take on more responsibilities and authority. Sometimes that means participating in evaluating teachers (Utah, Tennessee, and Charlotte-Mecklenburg), mentoring (Utah and Charlotte-Mecklenburg), and/or curriculum development (Temple City).

But what do "years of experience" provide? While experience contributes to a pool of knowledge about teaching that can be offered to novice teachers through mentoring, and it may indicate effective practices and an ability to make suggestions about effective practice, experience alone does not produce or guarantee "good teachers." In Charlotte-Mecklenburg, where differentiated staffing patterns rest on an assumption that teachers are always learning and developing in their professional ability, added responsibility and authority result from growing competency. While all the programs mention a like component, "staff development" remains a fuzzy somewhat amorphous being which hinges on evaluation rather than learning. Essential questions to ask are What is being developed and why? What does good practice look like? and, What do we want teachers to do?

Answers to those questions have been phrased in terms of lists of competencies upon which teachers are evaluated. Most of the programs used a system of evaluation that teachers had access to at any time. Teachers also participated in the process, through peer evaluation and conferences regarding the outcomes of their own evaluations. Most districts offered training and suggestions for improving teaching. But it is unclear whether systems accepted and incorporated new ideas about practice and then change their evaluation systems to reflect the ideas. What happens when new ways of thinking about teaching and learning cannot be listed? Districts look toward differentiating staffing as a means of attracting and retaining good teachers, but good teaching which cannot be evaluated by way of minimum competency lists may be missed, or worse, discounted. Would an adventurous teacher (Cohen, 1988), willing to take risks and try new ideas, want to work in a profession which limits what she can do in her classroom?

Alternative Designs to Manage the Problem: Some Proposals

In the previous section we examined four existing career structures. The structures tinkered with factors in the occupational structure that have little to do with teaching. Furthermore, we noted that such tinkering with certification, salary, and status put an emphasis on years of teaching experience rather than the nature of teaching. For some, the accumulation of years on the job could be indicative of exemplary teaching and preparedness to mentor and assist other teachers. For some, salary increases may be enough to coax those in teaching to stay. But for many teachers, attention to the complexity of the

work and practice is necessary. The nature of classroom practice is more challenging and the cultural norms of the workplace are a stronger influence than any of these existing occupational structures acknowledge.

To acknowledge everything in one proposal might be overwhelming. So we are left with the question, What factors should alternative career structures address? Three dominant views found in the literature can help to answer this question. Scholars from a variety of disciplines advance a view that focuses on the organizational factors in the system. They argue that the way schools are organized and the way teaching is organized within school organizations shapes teachers and their pedagogy (Bidwell, 1965; Cazden and Mehan, 1989; Cuban, 1984; Elmore, 1989).

Scholars with a second point of view agree that the practice of teaching itself prevents teachers from gaining a sense of efficacy. Scholars promoting this view argue that the practice of teaching is fraught with uncertainty, requires risk taking by individuals and groups of teachers, and is dependent on students' growth for measures of success (Cohen, 1988; Jackson, 1986; Lortie, 1975). These inherent characteristics make the occupation of teaching difficult even without considering any additional organizational factors. A third argument explains teachers and teaching through a sociocultural lens. These scholars argue that family background, schooling, and dominant sociocultural influences present in this society shape teachers, teaching, and the cultural norms of the workplace (Feiman-Nemser and Floden, 1986; Little, 1987; Zeichner, in press).

After examining the multiple views about the organizational structure of schools, the practice of teaching, the culture of teaching, and teachers themselves, we conclude that occupational structures for teaching need to consider three main factors: the organizational factors in schools which affect teaching; inherent tensions in the practice of teaching; and norms, values, expectations, and teacher roles. In addition, we conclude that an occupational structure designed around factors that facilitate teachers and teaching could draw quality individuals into the profession and give them reason to stay. In other words, if we want quality people in the profession who can inquire, deliberate, and question with colleagues, and make professional judgments based on multiple sources of information, then we need structures that will enable such activity. If we want to attract and retain expert teachers who have the ability to use their knowledge and expertise to enhance schooling for students, we need to build occupational structures that acknowledge such expertise.

In this section we propose three possible occupational structures responsive to teachers' knowledge, competence, interests, and needs. Each option takes into account the nature of teaching practice and the norms operating in the work place. The proposals address the fact that teachers are a group of diverse individuals who make choices based on the multiple sources of their knowledge.

Our proposals differ from each other and the status quo along three dimensions.

1. *Choice and autonomy* refer to the degree and kind of choices teachers can make. Choices can be made on the basis of both personal and career goals.
2. *Responsibility and authority* refer to the tasks that teachers perform. Also it includes the authority teachers gain through the knowledge and skills they have to carry out responsibilities and contribute to the growth of students and colleagues.
3. *Rewards and incentives* refer to things that encourage teachers to engage in fostering student learning.

After explaining the proposals, we evaluate each according to its impact on teacher choice and autonomy, responsibilities and authority, and rewards and incentives. To help us in this speculatory venture we created a hypothetical case of an elementary teacher. Jody is a six-year veteran elementary teacher, with a B.S. in English and an M.A. in teaching. Recently married, she plans to raise a family in the next few years. Currently, Jody teaches in an inner-city school. While in the middle of a large metropolitan area, local residents feel a strong community identification within their neighborhood giving the school a small town feel. Jody has done most of her teaching in inner-city schools and has been in this school for three years. Although she has no plans to leave the school or to leave teaching, she will admit to having feelings of restlessness due to the sameness and isolation that come from working within a self-contained elementary classroom. She will also admit to being bored with the content and feels that her opinions carry little weight in school policy.

While at times restless or bored, Jody feels committed to teaching. She loves her students and cannot imagine doing anything else professionally. She would ideally like to remain in the profession, in some capacity, throughout her career. She is the kind of teacher any school community would love to have. Throughout her career she has received superior ratings on her evaluations. She fosters school spirit, organizing and coaching a cheering squad to cheer at school basketball games. Colleagues respect her and enjoy talking with her about work and her many other interests. "She's simply a delight to have on board!" remarked one of her principals.

With Jody in mind, let us examine our proposals for altering teacher career structures.

Proposal 1: Teacher as Participant in a School Community

Teachers have different expertise. They differ in their knowledge of subject matter, of students' cultural backgrounds, and organizational capabilities to name a few. In this proposal teachers identify what they know and what they want to learn more about. As a collective, they use their practical knowledge and expertise, which calls for deliberate action and justification (Kennedy, 1987), to shape the tasks of teaching practice and to determine which persons would be best suited to perform different tasks.

By "task" we refer to the multiple activities involved in the act of teaching. Like any work, teaching involves a multitude of tasks, varying in kind and degree. Under current structures teaching tasks are generally imposed or exacted without consideration of teachers' knowledge, expertise, input, or desire. However, a structure in which teachers may take on *appropriate* tasks, that is, pieces of work that fit their knowledge, level of expertise of professional growth interests, could lead to greater satisfaction with work and greater teacher retention.

In Proposal 1 we differentiate the work of teaching through an allocation of tasks to teachers who have the knowledge, expertise, and desire to do or learn particular things. Teachers' choices of tasks could be bounded by knowledge and by the degree of desire to learn how to take on different pieces of work. The successful implementation of this proposal would require teachers, as a collective unit, to define tasks and designate accompanying responsibilities. Who held what authority could be determined by teachers and administrators together. Teachers and administrators could also decide which tasks require more time and energy to learn and do. Since teachers and administrators would be working together to define, construct, and carry out a task, Proposal 1 would need to be implemented over a lengthy period of time and would involve a long-term commitment from participants.

Choice and autonomy. Teacher choice could be exercised in two ways: (a) when teachers define and associate tasks with new and/or different roles and (b) when teachers decide who the appropriate person is for each position. To define the tasks which also ultimately define the nature of the position, a committee of administrators and teachers representing the diversity of the staff would be established. The first decision of such a committee could be to examine the school organization, student population, and teacher expertise in order to create a school goal. For example, given that a school committee in an inner-city school had the expertise to draw upon, they might choose to focus on "writing across the curriculum" throughout the year. The committee could identify how the theme would play out and what might need to be done in order to fulfill the goals.

In the next step, tasks could be defined and distributed. Teachers and administrators could define the positions and related responsibilities, the knowledge and skill requirements, and authority associated with each position. By identifying and defining positions, teachers could make well informed choices about that which they wished to undertake. They could consider their goals for students, themselves, and the school in order to design tasks and responsibilities that would facilitate school and personal career goals.

Eventually an established decision-making process designed by teachers and administrators could emerge. Because teachers and school administrators would be working together to define tasks and responsibilities, we think the choices teachers would make could be consistent with their interests and expertise, which could facilitate sound teaching practice. Some tasks might change according to student population, anticipated outcomes, current

school goals, and so forth. Yet many of the types of tasks teachers would design and do, as well as the structure of those tasks, would eventually stabilize. In addition, the teachers change positions as they try new tasks.

Responsibilities and authority. In Proposal 1 teachers would be responsible for determining what has to be done to engage students in meaningful learning and thinking. Teachers could deliberate about responsibilities individuals could assume and the time, resources, and energy necessary to fulfill them. For instance, one position growing out of a "writing across the curriculum" focus might be "curriculum specialist/teacher." The individual in this position could develop instructional units that combine science content and writing to share with other teachers. Carrying out specific classroom responsibilities might include helping teachers select appropriate materials, talk with each other about writing, and do research to see the effects of newly enacted curriculum. In order to carry out new responsibilities, new load times could be established (e.g., 75 percent of one's time might be curriculum-related and 25 percent could be teaching students to try out suggested curriculum reforms).

The authority individuals assume could develop gradually. A teacher who had strong knowledge of a particular subject matter, practice teaching it, and interest in studying it could become a leader, or be looked upon as an authority in that area and become a resource in the school. In the example we've used, the teacher taking on "curriculum specialist/teacher" could teach and try out ideas, help colleagues, or develop curriculum. It might be possible to grow into a position of authority thereby stretching one's expertise or interest. What one learns, how one could transform knowledge in teaching practice, ways individuals could study what they know and do could provide evidence and justification for differentiated authority patterns in the school. Authority could emerge from what one already knew and was learning. Since knowledge and learning would be central to the types of positions teachers could assume, continuing education and staff development opportunities would be necessary. Staff development opportunities could be provided by the district, local community colleges, area businesses or a partnership arrangement.

Rewards and incentives. In Proposal 1 rewards and incentives include opportunities for involvement in creating school policy as well as thinking about material benefits. Monetary compensation alone does not provide teachers the incentive to teach better or to remain in teaching (Lortie, 1975; Murnane and Cohen, 1986). Opportunities to engage in a variety of teaching tasks and to expand one's knowledge and expertise would become the main incentives for teachers. Another reward would be the high degree of choice regarding issues of time, scheduling, resource allocation, decision making. In addition teachers would be able to tailor their work to fit their career goals, interests, and expertise. Salary and other material benefits could be figured on a scale that included task complexity and knowledge and expertise determined necessary for the task. The committee of teachers and administrators could establish a base level of expectations and compensation for each

position. Other rewards such as medical benefits or release time during school hours for professional growth could be added according to the complexity of the task, the responsibilities, and authority.

The case of one teacher. In a system which adopted this option, our hypothetical teacher, Jody, together with her colleagues and principal might define her position as "Curriculum developer, 40 percent; classroom teacher, 40 percent; staff developer, 20 percent." Jody's decision to take on this position could be based on what she knows about the position, her knowledge and expertise, the support shown for this position by the committee, and her personal interests. This opportunity could be exciting to Jody since she could see the potential for challenge in a new position. Since she views her classroom as a laboratory for study and she has no desire to stop teaching children, she could see the 40 percent time in the classroom as a way to continue teaching students while taking on different professional challenges.

This year the decision-making committee in Jody's school decided to focus on creating a new life-science curriculum which will be integrated throughout the curriculum. Jody is pleased the committee thought her suited for participating in many phases of curriculum development. She took courses in biology and ecology in college and has always wanted to put them to use. In her new position she will have time to learn more about the content and about staff development. She will have opportunities to learn how to best work with her colleagues as she passes on what she is learning about science education and helps to shape the curriculum for students. The structure of tasks evolving at Jody's school takes into account Jody's interests and competence. She will be able to pursue her interests and explore new ideas with the support of her colleagues and administrator.

Proposal 2: Teacher as Participant in the Local Community

In Proposal 2 teachers could become embedded in a community of learners and learning. By "community" we mean the social interaction and social decision-making members make through negotiating purposes, content, and processes conducive to bringing about particular ends. Teachers and district administrators could work with members of the local community (e.g., parents, business people) to establish the goals for students' education and the bounds of teachers' work. In Proposal 2, all members of the decision-making team would need to actively participate in all decisions. The participation must be seen as equitable by all participants because in a community of people actively participating in the education of their children, every decision affects everyone to some degree. Equitable participation could create a sense of ownership of ideas and actions for all members of the community.

Whereas in Proposal 1 a committee of teachers and administrators played the central role in decision making and defining teacher activity, in Proposal 2 the decision-making unit would be broadened to include other constituencies directly involved in the school

community. The school, which would become the unit for change, could reflect the interests of the whole community. Teachers could share their responsibility and authority with other constituencies as together they build career structures, manage the educational environment, and consult with each other as well as other interested parties about new developments. Schools would have the benefit of drawing from multiple sources of knowledge and expertise to help bring about quality education.

Committee members, active in the community, could help to bring about changes in schooling by providing information. For example, one goal could be to change the general public's view of the school (and its teachers and students) in their community. The idea would be to let more people in on life "on the other side of the desk" and to generate wide support for teachers and the learning activities they promote. Honesty about the complex nature of the work of teaching, the inherent dilemmas of practice, isolation, and lack of opportunities for change could create a climate of community support. In this way it might be possible to create an informed and supportive populace so that people would be less apt to point a finger at any one group to account for school failure.

Similar to Proposal 1, the types of positions available in the school as well as the number of such positions would depend on the goals of the community as established by its representatives. Student needs and how to best meet them through quality teaching would be the basic principle guiding decisions.

Choice and autonomy. In Proposal 2 teachers could exercise a lot of choice in terms of how they serve and what they do on school committees. Individuals could elect not to be involved on the committee, or to present a solution or an idea to the committee, be on the committee itself, or provide the committee with information or support. Teachers could choose to take on new positions, or remain in their current roles. Through this system, teachers could contribute to the school governance structure as individuals, in small groups, or as a building staff. Parents could also voice a variety of concerns about their own children or the school as a whole. In addition, other constituencies traditionally unrepresented could actively participate in school decisions. All interests and views could be heard and then negotiated among groups. Individual preferences would be argued in the context of community culture, needs, values, and resources.

Responsibilities and authority. In Proposal 2 teachers' responsibilities and authority would be decided upon through the committees. Representatives from the parent, teacher, administrator, and community constituencies could first discuss and make explicit their concerns and wishes, the nature of the work to be done, and the expectations for completion of that work. From the discussions, concrete tasks could emerge. Authority over those tasks could be negotiated. The function of running the school as a place for learning worthwhile things could be the driving force in committee deliberations and decisions.

Knowledgeable individuals, competent in both subject matter content and pedagogy, learners, and community norms and values could assume appropriate responsibilities and

exercise authority. Political skills, such as building coalitions, negotiating, and setting up useful forums for discussing and guiding policy and practice could be valuable tools. Interaction between people and stimulating that kind of interaction could help make Proposal 2 work. Teachers would have considerable latitude in the responsibilities and authority they assume. Yet that latitude would be bound by teachers' knowledge and expertise in particular areas.

Rewards and incentives. In Proposal 2 the central motivating incentive would be the opportunity to exercise an active voice in any or all decisions that affect their work and their students. Opportunity to have access to another arena of their work, that of organizing and operating their workplace, could be another motivating factor. In addition, teachers could have a great deal of creative latitude to develop and experiment with alternate ways of teaching, developing school communities, and tapping into out-of-school community resources.

Because school involvement might drain the available time and energy teachers have for their work, an additional incentive could be release time. In order to do that, teachers could give up some of the custodial activities many of them do currently (e.g., time watching kids on the playground, time checking kids in the lunchroom). Since other times may also be necessary, and other kinds of community participation may be encouraged, restructuring the school day (e.g., a shorter workday once a week), and creating different instructional arrangements (e.g., working with an instructionally trained aide) could be discussed. Incentives for other participating community members also warrant consideration. In Proposal 2 perhaps the greatest incentive for teachers could be that they could count on working in a situation in which their work, including their professional knowledge and preferences, could be respected. The governance structure could actually become responsive to the work of teaching and learning.

The case of one teacher. Jody could participate on her school's standing committee, which might include teachers, parents, administrators, business community associates, and one district representative. Though Jody could sometimes find committee work taxing and somewhat frustrating, she could find it interesting to explore others' ideas and work on including them in plans. Through her participation, Jody could grow personally and professionally; she could feel that her voice was heard.

Though she has to stay two hours after school twice a month, Jody thinks it is worth her time since she is influencing what happens in her school. Other teachers, who wish to participate less or only when they have a particular issue to raise, rotate their places in meetings and switch off with each other. The school principal values the committee, and the time people give, and supports teacher participation by assigning less miscellaneous duties to teachers on the committee. In fact, a current agenda item is how the school can hire one more nonteaching assistant and/or get parents to volunteer their time to assist in things such as lunch count, recess monitoring, and oral reading to classes.

This academic year the school decided to create a life-science curriculum, and to focus on integrating ideas from science into different subject areas. The committee decided to provide monetary support to three classroom teachers, one community-college biology teacher, and one community member. Jody lobbied hard during deliberations about what the curriculum should and should not include. More hands-on experiences in physical and earth sciences would enhance student learning. However, due to financial constraints the group decided to postpone this change. Though Jody had a chance to argue her points, the majority vote ruled. Jody still has options. She can accept the decision or try again when the committee reviews the draft curriculum. She may also ask to transfer to another school and present her case again to a different committee.

Jody's decision will be tempered by her abiding interest in life-science studies, and the chance she now has to use her knowledge and interests to construct a curriculum. She can try for one of the additional staff positions awarded to persons having appropriate knowledge and expertise and able to prove they will continue studying both the content and curriculum. Even if she does not get one of those positions, she can use and expand her knowledge in new ways as the school focus on life-science suggests. In either case, Jody has actively participated in decisions that affect her own professional future, her students' education, and the growth of her community. She can work on her multiple interests: growing professionally, having support from her district to do so, and wanting to serve best the needs of the community.

Proposal 3: Teacher as Individual

Our third proposal differs from the previous two in that it has a ladder-like structure. It differs from what currently exists, however, in that it pays attention to the *content* within the structure instead of just to the external framework. The content we speak of would be the result of deliberation about the work of teaching and the individuals doing it. A framework could be constructed which might support a range of practices and perspectives. All teachers could choose something that fit with their knowledge, competence, interests, and needs.

The key element in Proposal 3 is the creation of "packages" from which teachers would choose (a) professional development opportunities and (b) workloads/benefits including workloads, schedules, fringe benefits. The content of "packages" would be determined through joint deliberation of teachers and administrators at the district and local level. Inquiry, debate, and vote among teachers and administration could nail down particulars. Establishing different packages could provide opportunities for growth and flexibility according to different life styles and phases of personal and professional life.

For example, one teacher could participate in a summer apprenticeship with a local business in order to learn about economics in the local community. With what was learned, the teacher could begin curriculum development for students around topics of economics,

social science, history, and physical sciences. Another teacher might elect a package enabling continued professional development with no change in position or benefits. The point here is that a range of packages showing a district's genuine interest and value for professional development *for the sake of its students and teachers*, and not just for forcing teachers to move up a career ladder they do not wish to climb, could be constructed.

Choice and autonomy. In Proposal 3 teachers would have a high degree of choice through the creation and selection of different employment packages. Selection as well as autonomy would be mediated, though, by individuals' knowledge and expertise. Like other professionals, teachers would have to make the case that they could handle particular roles and tasks. Multiple kinds of evidence (e.g., peer recommendations, classroom observations, examinations to assess different kinds of knowledge appropriate and necessary in the position) could be gathered regularly by teachers as a way to record their own growth as well as demonstrate competence. While teachers could choose among packages that best fit with their knowledge, expertise, and professional needs and interests, the idea that teachers would continue growing and learning would be an integral driving force in this option. For example, some teachers could be learning about a subject or area, and therefore might require working in tandem with other professionals in and out of the school building. Other teachers might only choose a particular package for half a school year, until they engage in appropriate learning experiences.

Responsibilities and authority. In Proposal 3 teachers would be held responsible for the tasks and authority associated with each package they select. The district could set up multiple ways to decide what duties should become part of which packages, and teachers could be part of the decision making. One responsibility of setting up packages would be assessing what individuals needed to know and be able to do in order to take on jobs. As with the other proposals we have made, Proposal 3 would assume that teacher knowledge and competence act as driving forces for taking on new work or changing work. Likewise, knowledge and expertise would determine the degree and kind of influence teachers could have in the organization and implementation of different tasks.

Differences in teacher knowledge and competence might lead to the creation of different packages and different configurations of the responsibilities and authority. A district would need to take account of its teachers and their areas of expertise. What personnel could offer, what students need, what a district could do monetarily would be some of the determinants of the shape and content of packages.

Rewards and incentives. In Proposal 3 teachers could be motivated through rewards based on what they know and how they could capitalize on it. Teachers could be enticed by opportunities to choose what they want and what they wish to give in terms of their professional lives. As the number and variety of employment packages would expand, and the number of teachers designing and creating them expands, so too could the rewards and incentives change. The kinds and numbers of packages a district offers could send implicit

messages to teachers about the perceived value of their work. Individuals differ in terms of their knowledge, values, and interests, and variations of those could be encouraged and supported through professional development and benefit packages.

The case of one teacher. Jody's changing interests over time and her commitment could be rewarded in Proposal 3. Though her interests when she entered teaching included different subject matter curiosity (e.g., biology, history, English literature), this option could support her change in interests by enabling her to do other things. For example, she could carry out action research in her classroom. She could do something in line with her new interest in reading, and especially in helping troubled readers. She could take some courses, and/or volunteer at an adult literacy coalition. She could take time off to raise a family and return to part-time teaching.

Jody's life changes, interest, and expertise changes paint a portrait of a teacher in transition. Proposal 3 could allow a teacher such as Jody to structure her professional life around her personal and career growth. She could choose a professional development package enabling her to enhance her knowledge and expertise or to develop other interests. The benefits package could work to keep her in the field, even while she raises her family, through multiple part-time work options in which she might share a classroom with another teacher, both working part time.

An example of how Jody might get involved through choosing different packages enabling professional growth and change came about when she overheard teachers talking in the lounge. The teachers decided to explore possibilities of creating a life-science curriculum they could integrate with all school subjects. Jody realized her knowledge of life science, gathered through participation in a 12-week staff development module, her college course work, a summer job with Dow Chemical, and some research she did in her classroom while students piloted science materials, could enable her to develop curriculum and eventually be in staff development.

Packages available through the district made it possible for her to apply for such a position. The packages enable Jody to explore the different interests she has in the field, and continue her education in the area. The district realized that by giving Jody an opportunity to grow, she could learn and then teach her colleagues. In this way, the whole system benefits from Jody's professional development. By investing in their current assets, so to speak, the district stands less chance of losing "revenue" in terms of personnel. And Jody, a fine teacher committed to her work, remains satisfied.

Appraising the Designs: Assessing the Alternatives

Our proposed alternative occupational structures differ from existing occupational structures in terms of who they address, what aspects of the work of teaching they address, and how they address them. The structural flexibility and adaptability in our options support variation in individual teachers' work, practices, interests, and needs. The structural

flexibility facilitates adaptation to contextual factors, for example, norms and expectations operating in certain settings, ways of organizing the work place. Each proposed structure is derived from our thesis that the nature of teaching and learning is affected by individuals' varying competence, knowledge, interests, and needs; and that teaching as a work *system* includes many individuals performing tasks, together and alone, aimed at helping students learn worthwhile things within the context of a learning community.

Though the proposals allow for and celebrate variation, we are not calling for a totally idiosyncratic career structure. Certain parts of any structure are necessary to uphold standards and support teachers' work. For instance, essential to the work of teaching is fostering worthwhile thinking and learning for students and self. The organizational structures we propose enable and facilitate reaching that goal through professional development opportunities and attention to student learning.

In order to evaluate the structures, we will look at the way in which they take into account individual teacher variation in work, interests, and needs while maintaining high standards for worthwhile teaching and learning. Also, we will analyze the ways in which the options take into account existing organizational characteristics (e.g., decision making) and norms and expectations of teaching life. We carry out the analysis by comparing and contrasting our three proposals and existing career structures.

Analysis

Variability in Practice

Put simply, no two people, no matter how skilled, perform the same job in the same way. Even a simple thing like hammering a nail into a wall can be done in various ways. Some mark the spot first with a pen. Some mark it with the nail and others don't make a mark. Some measure carefully before hammering, while others estimate and hope it looks right. When even easy procedures can be carried out in many different ways, imagining the multiple ways that teaching can look boggles the mind.

Variability in teaching practice is inevitable considering the numerous factors which can influence interactions among teachers, learners, and content. Important questions to ask are what kinds of variability can accompany good teaching? What aspects of practice can vary? How do teachers deliberate about and justify, for example, whether teaching division by fractions using a story problem is better than teaching only the procedure for getting the correct answer? At another level, what do teachers consider when making decisions about jobs and career changes? How might those considerations affect their practices?

In this paper we showed how existing career ladders tolerate some variation in terms of compensation, status, certification, and to some extent responsibilities and authority. However, they do not attend to any differences among individuals in terms of knowledge, preferences, and engagement in teaching. Nor did current structures consider existing norms, expectations, and teacher roles in schools. In Utah's structure, for example, teachers

could "enlarge" their jobs as part of their movement up the ladder. But questions about why they would seek to alter their jobs and work were not asked. On what basis or justification were they doing so? And what effect might the changes have for the quality of students' and teachers' instructional experiences?

Some scholars and researchers have looked at components of the current structures and reforms as "quick fixes" which try to sell themselves as fundamental change efforts (Bacharach, Bauer, and Shedd, 1986; Melnick and Pullin, 1987; Murnane and Cohen, 1986). They are not fundamentally different from previous career structure changes. Our analyses lend credence to that argument. Current structures showed the same pattern of specialization of functions and the creation of hierarchical authority relationships. Yet no one has proven that bureaucratization can guarantee better instruction and/or education. As teaching and learning continues to be reformed by further bureaucratizing, we need to question how compatible such elements are with good educational practices. In fact, some elements seem antithetical to good teaching and learning.

For example, by adding additional levels of preestablished status rankings, systems exist in which teachers compete with one another for a fixed number of positions, promotions and pay. Yet evidence from organizational studies show that collegiality and collaboration, not competition, with colleagues are norms of interaction associated with effective organizations (Bacharach et al., 1986). Another characteristic of bureaucracy, top-down decision making, has long been questioned in teaching. The staff development literature reminds us that teachers' sense of efficacy can be grounded in their work with students and ways they engage students in thinking and learning. What teachers know and can learn contributes to their growing competence and confidence, enabling them to make sound decisions and have a sense of ownership over their practice (Feiman-Nemser and Floden, 1986; Lieberman and Miller, 1978; McLaughlin and Marsh, 1978). Teachers need to contribute to decision making at all levels--classroom, school, and district.

Kinds of Variability

In practice, teachers' knowledge, instructional repertoires, and commitment to professional development could differ. In terms of an occupation, individuals could vary in their interests and willingness to take on new roles and responsibilities. Tolerating and even encouraging diversity within a system could be an incentive for attracting and retaining inquisitive individuals interested in dealing with uncertainty and taking adventures. Though current career structures tolerate some diversity, they impose multiple constraints which do not seem clearly linked to improving teaching and learning. For instance, Utah encourages individuals to become involved by giving autonomy and responsibility for creating a plan to those who have solutions. But solutions are required to fall within the five-part program legislated by the state.

Our proposals differ by offering teachers opportunities to influence different points of the system. In Proposal 2 teachers along with members of other constituencies decide what the district needs and respond to it by creating positions and rewards. As they create, they check who can fulfill the positions and how to help others gain knowledge and skill to fill other roles. In short, teachers and others can propose solutions and have help implementing their ideas.

In a slightly different way, Proposal 1 also tolerates variability of ideas, competence, and interest. Teachers can choose their roles and therefore the accompanying responsibilities and authority they wish to assume. While Proposal 3 constrains teachers' alternatives more than the other proposals by putting particular expectations and obligations into preset packages, it still gives teachers flexibility through choice of package and therefore choice of work and rewards. Varied levels of competence and interest are tolerated and encouraged.

Tolerating flexibility, and the uncertainty and adventure of trying new things, may encourage adaptive practices among teachers. Our proposed structures enable teachers to build in ways to communicate with each other about new ideas and practices. Teacher isolation can begin dissipating at the rate and level that teachers feel comfortable tolerating. For instance, in Proposal 1 teachers can create their jobs and define their roles. The hypothetical job Jody has of "Curriculum developer, 40 percent; classroom teacher, 40 percent; staff developer, 20 percent" is one which involves her in setting a schedule, working with colleagues to decide who does what, and when, and so on. Jody can learn and grow professionally, while feeling trusted to change her teaching practices.

Variability in competence and interests may lead teachers to make different choices, for example, what they want to work on, what they do best, what they want to learn. Whereas existing career structures push teachers to take on new responsibilities outside the classroom in exchange for increased pay and status, our alternative structures allow teachers to choose without jeopardizing rewards and incentives. Opportunities and support for continued professional growth still encourages the communication of new ideas and practices from all levels to all individuals.

The creation of new roles may be a consequence of career structures responding to diversity. Who gets what, who does what, and how those questions are decided are issues which teachers, administrators, and parents will determine. In our proposals, the degree to which influence and authority over teaching stays centralized or is diffused out to individual districts, schools administrators, teachers, and parents will vary across settings.

Changes in status and authority are bound to arise, too, as new constituencies are included in deliberations. Individuals will earn status by learning more, becoming more competent in their teaching, and helping colleagues. Teachers, as the main workers in the

system, will still exert great influence; they know the practical side better than anyone. The important point is that teachers have some degree of influence over their work and life in schools.

Existing schemes gave teachers some influence in terms of deciding what could happen. For example, local districts had teachers drafting career structures, sharing in the running of the school, and taking part in peer evaluation teams. (see Utah, Tennessee, Charlotte-Mecklenburg). However, other constituencies were marginalized from suggesting and making changes. Also, little reason and/or deliberations about teachers' influences were mentioned. Finally, existing plans remained vague about delineating how much influence teacher participation actually had in altering career structures and affecting teachers' practice.

Of all our proposals, the second offers teachers the greatest level of influence. It provides them with ownership over the new plan, the curriculum, and their work. Like most people, teachers are more likely to become an integral part of something that is personally meaningful or purposeful. When teachers and the community are asked to participate in school decisions, they can elect to participate in those areas of personal or community service. Proposal 1 and 3 also allow teachers, through choice, to select work and conditions which fit with their knowledge, interests, and needs. For example, teachers could work half days while raising a family, swapping responsibilities with other teachers and administrators over time, and mentoring novice teachers.

Our proposals tolerate and encourage diversity among teachers in knowledge, competence, interests, and needs. The structures remain flexible and adaptable to idiosyncratic as well as system changes in those areas. We argue that changes must support efforts and practices promoting worthwhile learning for students and teachers. Yet the effects of proposed changes offer no precedent and no guarantee. Questions about the flexibility, feasibility, and workability of the proposals seems inescapable and can threaten to erode the faith and hopes we put into new plans. Questions about the variability we should tolerate and encourage, as well as the kind which may help bring about effective practice and attract and retain quality teachers, warrant further investigation.

Teaching Practice

In this section, we discuss the multiple aspects of teaching *practice* in terms of the role of knowledge and teaching as a work system, within which allocation of resources, decision making and leadership come to bear. The comparison consists of an examination of the political struggles, institutionalized ideas and practices, and technical or operational prerequisites and imperatives involved.

The Role of Knowledge in Predicting Structural Design

Our proposals rest upon the assumption that teachers can be trusted to design and govern their work. We view teachers as shareholders in the creation, debate, revision, and communication of knowledge and meaning in teaching practice, given they learn and construct appropriate knowledge and competence. Teachers can contribute to the body of professional knowledge. The personal and practical knowledge practitioners have, in addition to their disciplinary knowledge, helps them make sound judgments and understand the complexities of classroom learning in unique and valid ways (Clandinin, 1985; Elbaz, 1983). Knowledge and expertise developed through teaching experience, continuing education, talking with other teachers, and reflecting on practice can lead teachers to make self-initiated changes in beliefs and practices.

Proposal 1 assumes some teachers' knowledge and competence will change, and may lead to new interests and needs. Knowledge about curriculum, for instance, can point teachers toward many diverse positions, for example, curriculum developer/part-time teacher, 75 percent time curriculum developer/25 percent time administrator, staff developer/part-time teacher. Knowledge about curriculum becomes a negotiated commodity with which individuals can "purchase" different responsibilities. Proposal 3 also suggests knowledge as a commodity in that one can purchase a particular reward and incentive package tailored to one's knowledge or to one's growing competence and interest in an area. In that sense, the package acts as an incentive to make inquiry in a new area.

In both proposals, teachers' knowledge drives the structure. In Proposal 1, the knowledge available through personnel predicts the kinds as well as numbers of positions a district establishes. In Proposal 3, teachers' knowledge helps determine the reward and incentive packages. Proposal 3, a concerted effort in the area of professional development, helps enrich the district by basically *infusing* knowledge into the system. Teachers engage in learning new things.

In our alternative career structures, knowledge becomes an important commodity that the district bargains for by trusting teachers to construct and use the knowledge they have and by setting up situations for them to learn through various professional development efforts. The district begins investing in the bank of knowledge and skill they have *already* in their personnel instead of building anew or hiring expert trainers for a workshop. Our analyses of existing structures showed that states and districts spent a lot of time negotiating about things, for example, teacher pay, loading on responsibilities and a longer work year, which no one was sure directly related to better teaching or student learning. Furthermore, added responsibilities given to teachers did not always grow out of the knowledge and interests they may have had. For example, in systems with peer evaluation (Charlotte-Mecklenburg, Tennessee, Utah), districts spent precious resources, such as time

and money, to train teachers to participate. In our proposals, individuals may have the skills and knowledge already, may have interest, may have some training, and so can identify themselves.

Our vision of what districts and schools can be includes teachers who (a) know something, and have the authority to act in accordance with that knowledge, and (b) are committed to learning more about teaching, about subject matter, about running a school, and so forth. Examination of a significant number of continuing education and inservice education programs lead us to conclude that teachers *are* driven by their commitment, by a desire to learn and know in order to teach, and by an attitude that learning for both themselves and their students is fundamental. Professional development in different subject matter areas, with teachers working at different grade levels and under many conditions, testifies to teachers wishing to be active and respected members of their profession: whether teachers are meeting in groups such as the Teacher Study Group on Mathematics (Lampert, 1986; Parker, 1988; Weinberg and Parker, 1988), in which elementary teachers puzzled over mathematics problems; the Light and Color Study Group in Colorado (see Apelman, 1985), in which high school teachers studied phenomena of light; the Traverse Bay Area/Intermediate School District Project (Johnson and Roehler, 1989), in which elementary teachers discuss and experiment with different teaching practices in literacy; or the IRT/AFT Toledo Support Teacher Project (Bettencourt and Gallagher, 1989), in which junior high school teachers are trained to be resource teachers in mathematics and science. In these projects teachers grow professionally, develop an increased sense of efficacy, and become motivated through intrinsic as well as external rewards.

Letting teachers' knowledge drive a career structure raises some inherent dilemmas in teacher education and teacher practice. First, the knowledge and skill necessary and satisfactory for good teacher practice, which brings about meaningful learning for students, needs to be explored. Finding and developing individuals having that knowledge also needs attention. Past efforts at identifying and delineating knowledge and skills across contexts, through process-product research, have come under question recently as being too generic and too general. Reforms of the 1950s and even more recent attempts emphasizing subject matter knowledge for teachers have also been questioned. Knowing one's subject matter does not ensure that one can teach it. Knowing ways to translate one's understanding and represent the content to learners seems to be essential for good teaching.

Assessing what teachers need to know to do their jobs continues to be a slippery issue. Of one thing we are sure: Many teaching practices can result in students learning worthwhile things. The kinds of practices used are mediated by students' needs, prior knowledge, and interest, and the content in which teachers need to engage students. Studying the variability in teachers' practices, along with the context and content of student learning, could help us better locate and understand the nexus between good practice and teacher knowledge. Our alternative structures permit and encourage variability of practice,

held in check somewhat by the knowledge and skill one can show through multiple lines of evidence. Teachers provide dossiers with illustrations of their classroom performance through evidence of students' learning (including portfolios of work, students' comments, teachers' anecdotal notes, standardized achievement scores), peer observations and comments, parent comments, administrator observations, and so forth.

Although in Utah, Tennessee, and Charlotte-Mecklenburg teachers gather multiple lines of evidence, the resulting portfolios serve only an evaluation function. In our proposals, we see the portfolios as ways to make inquiry into the kinds of knowledge, skills, and competence beneficial for particular roles and positions. We assume that what is in the portfolios, and what it reveals about teacher and student learning and knowing, is important. Current systems assume that merely gathering the information with little consideration of what it shows, and accumulating credits, degrees, certificates, passing tests, or attending inservice workshops will result in good practice. In short, we believe the depth and breadth of a teacher's knowledge can predict the authority and responsibilities a teacher assumes, can mediate choice among teachers, and can become an incentive for professional growth. Our proposals focus on knowledge as an integral ingredient of practice, whereas existing structures concentrate on pay, status, and responsibilities, the influence of which is unclear.

Teaching in a Work System

Teachers must contend with the complexities and constraints of doing a job within a system. In order to analyze teaching in an organization and how that might impinge on creation of career structures, we will discuss the organizational elements of resource allocation, decision making, and leadership.

Resource allocation. Setting up career ladders for teachers places different demands on resources and their allocations. In the programs we reviewed, we saw different plans for funneling money into teachers' hands, whether as direct salary, or an opportunity to participate in professional development. No matter how or what is doled out, however, under the status quo someone other than teachers was still making allocation decisions. Furthermore, little to no match was made between research and teacher's competence, interests, and needs. In our proposals, we emphasize the need to take into account teachers and the work they do and want to do when allocating resources. This is especially important since allocation plans can easily be complicated by questions of equity and status, e.g., who gets what and why.

In Proposal 2, all the stakeholders (teachers, administrators, parents) discuss the issues. Since each constituency is represented, the process can be more equitable than under present practices where some groups are excluded from deliberations and when policy is simply mandated from the top. We recognize the possible technical difficulties of this plan where everybody might fight for the best for their particular constituency. However, this is natural and by sheer reality, people will understand that only a certain amount of

funds are available and therefore compromise and negotiation must ensue. In Proposal 3, resources for teachers are bundled into packages teachers select according to their individual needs and desires. The district retains more control over what could be allocated than in Proposal 2, but teachers through their interests, knowledge, and expertise still hold power to drive the system. Proposal 1 is similar to Proposal 2 in that teachers would have a say in decisions about resources in their new positions.

Each proposal will require potentially some similar and some different resources. In all the proposals, teachers will need *time*--to talk with others, to think, to learn, to write. Also they will need time to make assessments of themselves, their classrooms, their schools. Through the extra and/or varied use of time and different roles, teachers could develop different norms of collegiality and interaction, potentially an important resource for facilitating and supporting teachers' work.

Decision making in teaching practice and school management. Evidence from research on organizations both in the public and private sectors carries the strong message that when participants are involved in decision making the investment and commitment they feel is enhanced (Clark, 1965; Griffin, 1983; Laumann, Glaskiewicz, and Marsden, 1978; Lieberman and Miller, 1978). Under the status quo, increased bureaucratization keeps the primary decision making about classroom and school matters centralized and done by only a few high-ranked persons. Even in Utah, where committees with teacher and parent representation helped create the career ladder plans, the power to implement plans differed a lot among districts. Committee decisions were still subject to district approval, which meant that centralized high status individuals still had veto power. Furthermore, the content of bargaining about career ladder plans consisted of issues only external to teaching practice. For instance, the committee might negotiate for pay rather than *why* teaching roles should be different and how changes in responsibilities might effect practice.

Including teachers in the decision-making process implies a different conception of teachers as legitimate stakeholders of knowledge. It assumes that teachers may be interested in learning more about teaching, about an organization and problems which can potentially befall it, about change and how to implement it, and that they may have ideas about what they want and need. When a district shares decision making with teachers, they show their good faith, trust, interest, and value in teachers and their work. Also, when teachers are heard and have influence, information flow through the system can be enhanced. Decision making may come more easily when everyone is informed (Bacharach et al., 1986).

Decision making in large organizations is inherently plagued with questions of equal representation, meeting all parties' interest, and choosing the person(s) who makes the final decisions. Our proposals cannot remove that inherent problem, but they can assist in making it more manageable. In all proposals teachers have more power in choosing their own professional destinies than under the status quo. In Proposals 1 and 2, they have a part in creating the positions, with their concomitant responsibilities and authority. Teachers also

design the way they carry out the obligations. In Proposal 3, teachers can choose among reward and incentive packages. Choices of this type require exposing teachers to the information and knowledge heretofore held in administrative confidence.

Leadership. Under the status quo, leadership was earned from different sources, including years of experience, seniority in a particular school, credentials, coursework, evaluations of classroom performance. Some sources revealed a disturbing lack of connection with practice. For example, while years of teaching experience could indicate knowledge about teaching and education in general, it does not necessarily indicate an ability to manage a school, mentor a colleague, or serve as a subject matter specialist. Even course work and continuing education in a particular subject matter does not guarantee one can teach the content effectively (Shulman, 1987).

Another way in which leadership was earned was through accumulating responsibilities. Career ladder plans in Tennessee, for example, showed that as a teacher moved up the ladder, s/he could elect to work a longer year and take on more responsibilities. The criteria and standards used to evaluate whether the teacher *should* take on more were based on the evaluations of minimum teacher competencies. In what ways does promoting someone to a leadership position based on those incentives enable one to lead effectively? Also, where does teachers' knowledge enter into the picture as a prerequisite for assuming new responsibilities and authority?

Leadership under our proposals is earned through an individual's knowledge, expertise, and interest. In Proposal 1 and 2, the knowledge and interest can drive an individual to change position. In Proposal 3, a teacher's knowledge and interest guide selection of a reward and incentive package. The staff development option integral to Proposal 3 provides the opportunity to train oneself for leadership.

In this paper we proposed that teacher occupational structures can reflect teachers' knowledge, competence, interests and needs. We proposed three alternative career structures in which we altered current organizational patterns for teaching and learning, roles, expectations, and norms for teacher behavior, and ways in which teaching practice is viewed. We altered elements of choice and autonomy, responsibilities and authority, and rewards and incentives, and compared and contrasted our proposals with existing structures. Our proposals differed from what exists because we made structural changes keeping in mind important aspects of the work of teaching and learning in schools. By so doing, we believe we can promote teacher learning, teacher change, and teacher satisfaction. We predict our changes, which better support teachers and their work, can help improve teacher efficacy with students and meaningful student learning.

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